BEFORE THE
WASHINGTON UTILITIES & TRANSPORTATION COMMISSION
DOCKET NO. UE-01
EXHIBIT NO (KON-4)
WITNESS: KELLY O. NORWOOD, AVISTA CORP

INTEGRATED RESOURCE PLAN

Technical Appendix



June 2000

Gas Price Forecast (Delivered) Nominal Dollars/MMBTU

Jane (p. 2)	2010	\$3,25
Mas Messelete C		\$3.12
] =	₹{	\$2.99
s Delivered to	2007	\$2.86
WEFA Group, US Power Outlook, 1999: Average Cost of Natural Gas Delivered to Electric	2006	\$2.74
	2005	\$2,84
	2004	\$2.58
	2003	\$2.53
	2002	\$2.49
	2001	\$2.48
Based on market at 12/99	2000	\$2.45

Annual escalation rate beyond 2010: 2%, based on NWPP and WEFA forecasts

Electric Market Price Forecast (\$/MWh)*

Resource Type				Capacity Factor (%)	actor (%)		Life (Years		Cost (\$/MWh)	h)*
Combined Cycle Combustion Turbine	ition Turbli	<u>o</u>		60			30		\$38.56	
	2000	2001	2002	2003	2004	2005	2008	2007	2008	2009
	\$37.06	\$36.57	\$37.18	\$38.65	\$39.35		\$40 A8	C/ + 73	•	777
					A 10 A 10 A 10 A	- {	2000	2		30.454

Electric market prices were based on the assumption that energy purchases from the Northwest market would be generated from combined cycle combustion turbines.

2000 - 2009 electric market price forecast was estimated from the 1999 Avoided Cost Case Filing.

* Does not include transmission cost adder.



2000-2001 Gas and Electric Least Cost Plan

December 1999

Table VI.3: Annual Average Mid-Columbia Power Costs - (\$/MWh)

	Low	Medium	High
	Gas Price	Gas Price	Gas Price
Year	Scenario	Scenario	Scenario
2000	24.49	24.54	24.51
2001	25.59	25.56	27.39
2002	26.04	26.95	29.76
2003	26.12	27.57	31.21
2004	26.31	27.54	31.85
2005	26.46	27.48	33.58
2006	26.82	29.80	34.58
2007	27.33	30.19	35.94
2008	27.98	29.60	34.90
2009	27.90	32.19	37.27
2010	28.56	33.43	38.08
2011	29.37	34.47	40.08
2012	30.61	35.65	41.69
2013	30.30	35.83	44.01
2014	30.42	36.30	44.59
2015	31.66	37.27	46.41
2016	31.04	38.20	48.41
2017	31.36	39.65	50.08
2018	33.61	41.04	51.91
2019	33.08	42.26	51.73

Electric Summary of Results

PSE faces a great deal of uncertainty regarding future loads because of the uncertainties surrounding both the nature and timing of ongoing national, regional, and statewide electric utility restructuring initiatives. Under scenarios assuming the structure of the industry remains similar to current practice (the Low, Medium, and High scenarios) PSE's existing resource portfolio will meet loads at least through the year 2006. Under open access scenarios (the Access A and Access B scenarios) the existing portfolio will meet loads through 2010 - 2012. Under scenarios entailing loss of even more load (the 5% Attrition, D. G. 10%, and D. G. High scenarios) existing resources meet loads throughout the 20 year planning horizon.

PSE's current resource portfolio consists almost entirely of generating resources and purchase contracts having future prices fixed based on either fixed resource construction and development costs or fixed contract purchase terms. While this portfolio is well adapted to the industry prior to the current wholesale market evolution and potential retail restructuring, it lacks the flexibility to respond to future load and price uncertainty. For these reasons PSE is seeking to diversify its resource portfolio by including a mix of both fixed and market priced resources as discussed further at the end of this chapter.

Centralia Plant Replacement Power

		\$ 4 = -1 t	
ŀ		Market	
		Rate	
		Projections	
PV	\$279	\$305	\$340
Levelized	\$28.69	\$303 \$31.37	· ·
Levenzed	Ψ20.09	φ31.37	\$34.97
	Low Market	Med Market	High Market
1999	\$24.54	\$24.54	\$25.54
2000	\$25.21	\$25.12	\$27.12
2001	\$25.55	\$26.12	\$28.12
2002	\$26.23	\$27.04	\$29.22
2003	\$26.61	\$27.68	\$30.04
2004	\$27.00	\$28.33	\$30.89
2005	\$27.39	\$29.01	\$31.77
2006	\$27.79	\$29.69	\$32.67
2007	\$28.20	\$30.40	\$33.60
2008	\$28.62	\$31.12	\$34.56
2009	\$29.04	\$31.86	\$35.54
2010	\$29.47	\$32.62	\$36.56
2011	\$29.90	\$33.40	\$37.60
2012	\$30.34	\$34.20	\$38.68
2013	\$30.79	\$35.02	\$39.79
2014	\$31.25	\$35.86	\$40.93
2015	\$31.71	\$36.72	\$42.11
2016	\$32.19	\$37.60	\$43.32
2017	\$32.66	\$38.51	\$44.57
2018	\$33.15	\$39.43	\$45.85
2019	\$33.65	\$40.39	\$47.18
2020	\$34.15	\$41.36	\$48.54